

# Silicone Selection Guide

## Mold making

Type	Name	Catalyst	Viscosity (mPa.s)	Mixing Ratio (A:B)	Color	Working Time (min.)	Curing Time (hours)	Hardness (Shore A)	Elongation (%)	Tensile Stenght (MPa)	Tear Strength (KN/m)
Condensation Cure	RTV SH1	CAT.N5RED	10.000	100:5	Blue	15-25'	1,5-2h	13	200-300	1,2	2,5
	RTV SH	CAT.N5RED	10.000	100:5	Blue	15-25'	1,5-2h	20	200-300	1,2	3,0
	RTV PC 05	CAT.L	25.000	100:5	White	60-90'	16-24h	5	500-600	2,0	10,0
		CAT.S-PE	25.000	100:5	White	60-90'	16-24h	5	500-600	2,0	12,0
	RTV PC 10	CAT.L	30.000	100:5	White	60-90'	16-24h	10	500-600	2,4	14,0
		CAT.S-PE	30.000	100:5	White	60-90'	16-24h	10	500-600	2,5	15,0
		CAT.L6	30.000	100:5	White	30-45'	6 h	11	500-600	2,4	14,0
	RTV PC 18	CAT.L	30.000	100:5	White	60-90'	16-24h	18	350-450	2,8	18,0
		CAT.L6	30.000	100:5	White	30-45'	4-6h	18	350-450	2,8	17,0
		CAT.S-PE	30.000	100:5	White	60-90'	16-24h	17	350-450	2,8	18,0
		CAT.THIRO	30.000	100:5	White	60-90'	16-24h	17	350-450	2,8	18,0
	RTV PC 20	CAT.L	32.000	100:5	White	60-90'	16-24h	21	400-500	3,2	20,0
		CAT.S-PE	32.000	100:5	White	60-90'	16-24h	20	400-500	3,3	21,0
		CAT.S-PU	32.000	100:5	White	40-60'	16-24h	20	400-500	3,1	20,0
		CAT.L6	32.000	100:5	White	30-45'	6 h	21	400-500	3,2	20,0
		CAT.THIRO	32.000	100:5	White	60-90'	16-24h	20	400-500	3,3	19,0
	RTV PC PAST	CAT.PASTE	Parte	100:5	White	30-60'	2-4h	30	400-500	1,8	10,0
		CAT.PASTENEW	Parte	100:5	White	60-90'	4-6h	30	400-500	1,8	10,0
		CAT.PASTERAPID	Parte	100:5	White / Red	<3'	10-15'	30			
	RTV PC 30	CAT.L	30.000	100:5	White	60-90'	16-24h	26	200-300	3,2	15,0
CAT.S-PE		30.000	100:5	White	60-90'	16-24h	25	200-300	3,2	16,0	
CAT.L6		30.000	100:5	White	30-45'	6 h	26	200-300	3,0	15,0	
CAT.THIRO		30.000	100:5	White	60-90'	16-24h	26	200-300	3,0	15,0	
RTV PC 55	CAT.N5TRANS	25.000	100:5	Red	60-90'	16-24h	55	100-200	3,0	4,0	
RTV PC 60	CAT.L	15.000	100:5	Beige	90-120'	6-10h	60	100-150	4,5	5,0	
RTV PC 5431	CAT.54	6.000	100:5	Beige	3-5'	15h	20	150-250	1,5	2,5	
Addition Cure	RTV PA 12		6.000	1:1	Orange	30'	2h	13	600	3,0	16,0
	RTV PA 22		6.000	1:1	Blue	60'	4h	22	450	4,0	20,0
	RTV PA 22 SPRAY		7.000	1:1	Trans / Violet	2-3'	15-20'	22	450	4,0	15,0
	RTV PA 25		9.000	1:1	Red	70'	5h	25	450	4,0	20,0
	RTV PA 28		8.000	1:1	White	70'	1,5h	28	400	5,0	22,0
	RTV PA 28 TG		20.000	1:10	Beige / White or Red	80'	4h	26	500-600	4,0	24,0
	RTV PA 30 FG (FDA)		17.000	1:10	White/White	60'	4h	30	500-600	4,4	27,0
	RTV PA 40		12.000	1:1	Violet	20'	1,5h	42	350	5,0	8,0
	RTV PA 460		130.000	1:10	Beige / Blue	60'		60	190	5,2	14,8
	RTV PA 10T		33.000	1:10	White / Trans	30"-120"	24h	12	770	3,0	12,0
	RTV PA 335		35.000	1:1	yellow	10'	0,5h	35	150	2,5	3,0
	RTV PA 549		40.000	1:10	White / Blue	60'	16-24h	45	300	5,0	9,0
	RTV PA PASTE		Parte	1:1	White / Violet	2-3'	6-8'	43	150	1,6	7,0

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## Mold making



1. Position the original you want to replicate in the adequate molding and supporting structure. If the original is complex with deep counterparts, apply a compatible release agent to the original.



2. Prepare the silicone base and mix with the matching catalyst.

Pour the base in a mixing pot big enough to expand 4 times while de-aired.

Add the catalyst (follow the guidelines in the Calsil<sup>®</sup> technical datasheet) in vertical position, use the Calsil<sup>®</sup> thixotropic agent.



3. Mix using a spatula (or better, a mechanical rotating-mixing device).

Once thoroughly mixed, the liquid will progressively and naturally push out most of the air bubbles from the liquid. To have best results and improve the flow onto the original, it is recommended to apply vacuum (refer to the technical datasheet).



4. Pour the silicone molding mix onto the original. Ensure a continuous flow over the original, making sure it progressively covers all the original to replicate.



5. Use a brush to even out the material in contact with the original, ensuring the molding mix covers all of it, and getting rid of the visual imperfections.

Push the mix through to the corners and parts where it is most difficult for the mix to flow to.



6. Resume pouring the mix, reiterate until the original is fully covered by an even layer of silicone molding mix.

Leave the mix to de-air naturally, pushing out the bubble from the mix. Wait for the silicone liquid mix to cure completely into a dry rubber (follow instructions in the technical datasheet).



7. Cautiously de-mold the silicone rubber original, using the rubber elasticity and avoiding the damages to the original.



8. For best results replicating plaster original with a reinforced water-resistant casting resin, Calsil<sup>®</sup> recommend JESMONITE<sup>®</sup> casting materials.



9. Cast the JESMONITE<sup>®</sup> resin in the Calsil<sup>®</sup> cured silicone mold.

Use a brush to ensure an even spreading of the casting resin. Wait for the recommended resin time to cure (follow casting resin producer's instructions).



10. Once the resin is fully cured, separate the silicone rubber mold from the original, using the silicone rubber elasticity.




11. The silicone rubber mold (center) replicated the original (left) in a casting resin (right).

**For more information, please contact our nearest office**

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